BILLINGS GAZETTE

Regional, USDA-funded biofuel studies hope to glean data, analysis from each other

6 HOURS AGO • BY MARTIN KIDSTON OF THE MISSOULIAN

MISSOULA — Two groups funded by the U.S. Department of Agriculture to study turning forest waste into biofuels will cross paths this year, as one group winds down its analysis of western Montana and the other gears up to study the northern Rocky Mountain region.

While the Northwest Advanced Renewables Alliance and the Bioenergy Alliance of the Northern Rockies are analyzing different forest products in hopes of developing a new fuel source, both may gain from the findings of the other group.

“We’re looking at forest residuals – post-harvest residuals – and BANR is focusing on the beetle-killed areas,” said NARA spokesman Charles Burke, based at Washington State University. “The work that’s been done has all been collected from the NARA side, and it will be useful for BANR.”

BANR launched in November on a $10 million grant to study the viability of harvesting beetle-killed trees and turning them into fuel. The group includes the University of Montana and Montana State University, along with Wyoming, Idaho and Colorado State.

NARA, in contrast, is looking to turn wood waste into jet fuel. The group, which launched on a $40 million grant in 2011, released its summary report on the western Montana corridor in August, and expects a final report to be ready this month.

“We don’t make policy, we’re just providing the information in an unbiased and scientific way, and that’s required for both projects,” said Burke. “We’re both charged to have an educational component, and we’re both required to have an environmental and lifecycle assessment to really hone in on the effects of doing these kinds of treatments.”

As written, the NARA study defines the western Montana corridor as extending from Billings to Great Falls and north to the Canadian boarder. The study’s western boundary follows the Montana-Idaho boarder north before darting west to Spokane, where it incorporates northern Idaho and eastern Washington.

“We’ve made the first big step with our study of the western Montana corridor,” said Burke. “We’ve picked up and are looking at the west side of Oregon and Washington now, but we’re staying involved in western Montana. We’ll maintain our relations there and respond to any new concerns while coordinating with the BANR operation.”

Adhering to the confines of the western Montana corridor, the NARA study analyzed the region's existing supply chain, as well as potential depot sites – including those at Pablo and Thompson Falls – where woody biomass is delivered from forested lands to undergo sorting and chipping.

The report also included a cost calculator and potential conversion sites, or locations where residual forest products would be converted to biojet fuel. The Montana sites identified in the summary include Libby and Frenchtown.

"Much of the work we performed in western Montana has identified what assets are available, from roads to railways to the workforce," Burke said. "A lot of the work we did was to evaluate the communities' acceptance of this type of industry."

Taken as a whole, Burke said, the data collected from NARA's study of the Montana corridor could be considered when building a bio refinery, helping private companies gage both risk and investment costs. The data could prove useful to BANR as well, as it gears up to launch its own study on the payoffs of converting beetle-killed forests into fuel.

BANR members said their study would examine the environmental sustainability of the biofuels industry, from the supply chain to the delivery of fuel to the market, or the "forest to the pump."

NARA already has studied the process, at least within the western Montana corridor, where members have examined what Burke described as the lifecycle assessment.

"That assessment work has progressed quiet extensively in NARA," Burke said. "There's a different feed stock with BANR, but the processes of transportation are similar, so they could use our data."

Though preliminary, the NARA report found that replacing fossil-based jet fuel with biojet would net a 61 percent reduction in global warming, an 88 percent reduction in ozone depletion, and a 60 percent reduction in fossil fuel depletion.

However, the report also found that under some scenarios, producing biojet fuel from forest waste would cost two to three times more than the going market price for petroleum jet fuel.

The 103-page summary report is nearing final form, though Burke said NARA's efforts in the region won't end where BANR begins.

The BANR study encompasses a different geographic region, along with a different fuel source. Along with UM and MSU, the consortium includes the Rocky Mountain Research Station and the National Renewable Energy Lab, along with Cool Planet Energy Systems – a Colorado firm whose investors include General Electric, British Petroleum and Google Ventures.

"Other NARA activities are continuing for the western Montana region, such as a formalized survey of stakeholders in the region and an economic impact model which can be used to gauge the economic impact of various processing decisions on local communities," Burke said. "The final document should be available mid-January."